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ABSTRACT

A study to obtain follow-up information on graduates from small Iowa school districts was conducted in 1988 to identify rural youth's "educational pathways" during the first 5 years after high school graduation. The sample of high school graduates was randomly drawn from 11 of 98 rural Iowa school districts with an enrollment fewer than 300. The initial sampling was 236 rural Iowa students from the graduating class of 1983; of these, 221 were contacted, and 174 responded, a response rate of 81%. A survey instrument was constructed using questions from the ongoing "High School and Beyond" study. Data were collected via telephone precontact with three followups and a site visit to school districts. Respondents were categorized into persisters and non-persisters in two-year and four-year programs, and were compared on the following characteristics: family background; influence of significant others (familial); other influence (extra-familial); student characteristics; and high school and college background. Results indicate that 80% of the respondents enrolled in a post-secondary institution during the first five years after high school graduation, and 26.4% withdrew from a post-secondary institution before program completion. Of the rural students who matriculated in post-secondary institutions, approximately 75% persisted until they completed their degrees, significantly higher than the national average of 50%. This document contains 18 references and Appendices including a summary of methodology, the questionnaire and two tables. (ALL)

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COLLEGE ATTENDANCE PATTERNS OF RURAL YOUTH:

Results from Rural Iowa's Class of 1983

Prepared for the
North Central Regional Educational Laboratory

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Introduction

In the past, researchers have painted a rather bleak picture of the educational attainment of rural youth. Indeed, research on rural schools has raised questions about the ability of small rural schools to provide an adequate basic education for their students and prepare them for college. Several researchers (Ayleworth & Blomm, 1976; King, 1963; Sewell, 1963; Sher, 1978) have reported factors thought to contribute to lower academic achievement among rural students, such as lack of curricular diversity and a paucity of college preparatory courses. Further, previous research has indicated that rural students possess traits often associated with academic failure and are more likely to drop out of college before completion (Ayleworth & Bloom, 1976; Brown, 1985). McLaughlin (1970) noted that a disproportionate number of rural college students "exhibited depressive reactions" to their post-secondary experience.

Unfortunately, little research examines in detail the "educational pathways" of rural youth. In general, there is a lack of follow-up information on the educational attainment of rural high school graduates. Research is needed that carefully examines rural school graduates' matriculation, persistence, and withdrawal rates in post-secondary institutions in order for college and university personnel to deal adequately with these students. In addition, research needs to describe rural students on a number of important variables that are related to educational persistence and attrition.

Policy decisions affecting the future of small rural schools, especially in regions such as the Midwest with substantial rural populations, must be guided by empirical research on small or rural schools and the students who attend them. The present study, supported by the North Central Regional Educational Laboratory, was specifically designed to obtain follow-up information on rural youth in Iowa from school districts with enrollments of less than 300. In the summary report of this study (Elliott, Schonert, Bills, 1988) we describe rural Iowa youth as differing on a number of important outcomes suggested by previous research (Aylesworth & Bloom, 1976) of rural youth.

The purpose of this paper is to fully describe the "educational pathways" of rural youth in Iowa. We examine the first five years after high school graduation. MacBrayne (1987) suggests that because rural communities can differ markedly from each other, research is needed that utilizes quite narrowly defined samples. Consequently, we make modest claims for the generalizability of our data beyond rural Iowa. Although this research does pertain to Iowa youth, we think the results should generalize, at the least, to other comparable (however construed) settings in the Midwest. Although the rural Midwest (in particular the NCREL states of Illinois, Indiana, Iowa, Michigan, Minnesota,

Ohio, and Wisconsin) is hardly undifferentiated, there seems to be enough similarities in terms of high school dropout rates, college attendance patterns, ethnic and racial composition (although to a lesser extent), and what is perhaps a vaguely defined Midwestern "ethos" to permit us to generalize our findings with some caution to the rural Midwest. There is no substitution, of course, for replication in other settings.[1] Because of the lack of descriptive rural research (Nachtigal, 1979) we are providing "profiles" of typical rural Iowa youths within four descriptive educational categories:

1. Two-year Attenders

   a. Persisters: All students who matriculated into a program requiring two years or less and persisted until graduation.
   b. Nonpersisters: All students who matriculated into a program requiring two years or less and subsequently withdrew from an institution, at least once, prior to completion of a program.

2. Four-year Attenders[2]

   a. Persisters: All students who matriculated into a four-year institution and persisted until graduation.
   b. Nonpersisters: All students who matriculated into a four-year institution and subsequently withdrew from the institution, at least once, prior to completion of a program.

Using these four categories, we examine and compare respondents on the following characteristics: family background, significant other influence (familial), other influence (extra familial), student characteristics, and high school and college background. It should be noted that these are not mutually exclusive categories because some students attended both two-year and four-year institutions at different times.

1. There is no way to provide a precise estimate of the generalizability of our findings. The most comprehensive source of American educational statistics, the Office of Educational Research and Improvement's Digest of Educational Statistics, presents an enormous amount of data that allows comparisons between states, but nowhere draws urban-rural distinctions.

2. Of course, we realize that more recently the average length of enrollment for students to earn a bachelor's degree is approximately five years.

Method

This study was designed to elicit a better understanding of the educational paths taken by the graduates of small rural high schools in Iowa during the first five years following graduation. Because we have described our research methodology in considerable detail in another paper (Elliott, Schonert, Bills, 1988), we outline only the most salient aspects here. We have reproduced the full methodology section of that paper as Appendix A in this report.

Sample Selection

We began our sample selection by randomly selecting 11 rural Iowa school districts with enrollments of less than 300 from a population of 98 such districts (Iowa Education Directory, 1986-1987 School Year). We collected information on the graduating class of 1983. Although education may not be entirely complete five years out of high school, by this point students can be expected to at least be on somewhat established "pathways." Moreover, we selected 1983 rural graduates because we felt that they were close enough to their high school experiences to be able to reflect upon them accurately.

Respondents

Our initial sampling frame consisted of 236 rural Iowa students from the graduating class of 1983. Out of this sample we were able to contact 221 students. One hundred and seventy-four students returned completed surveys, for a response rate of 81 percent. These surveys comprise the data for this study.

Survey Instrument

We developed a survey instrument using questions from the ongoing *High School and Beyond* study to gain information from 1983 graduates (National Center for Educational Statistics, 1983). These items have all been carefully field tested and have highly satisfactory reliability and validity.

We found it necessary to change the tense on several questions because *High School and Beyond* surveyed students who were still in school, and we surveyed students after their high school graduation. Our survey instrument is presented as Appendix B.

Data Collection

Data collection included a telephone precontact and three follow-ups. Following survey collection, we conducted on-site visits to the school districts to collect transcript information on each respondent and to talk to school personnel (i.e., superintendent, principal, or counselor). We did this to determine the dropout rate for the class of 1983 as well as to elicit further information about the students and the schools. For example, in order to check the accuracy of students' responses, we collected information regarding students' participation in extracurricular activities and parental educational and occupational levels.

Data Processing and Analysis

We compiled clear "profiles" of each group (i.e., two-year persister, two-year nonpersister, four-year persister, four-year nonpersister) by examining frequency distributions by group. Because we are not testing hypotheses, we did not formally calculate statistical significance tests. We highlight differences that are of clear, substantive interest.

Operational Definitions of Variables

The variables used in the present study have been considered salient by educators and researchers investigating educational attainment (Schiamburg, Chin, & Lee, 1988). We describe them as follows:

1. Family background: Family characteristics while the student was in high school, including family composition and parental occupational and educational information

2. Significant others' influence (familial): Mothers' work histories while the students were in school and students' estimates of how much influence their parents had on their future plans

3. Other influences (non-familial): Students' perceptions of others' influences on their educational and occupational decisions, and best friends' plans for college

4. Student characteristics:

    a. Descriptive: Number of siblings and current residence
    b. Achievement: Educational achievement test results from kindergarten through the twelfth grades, including ACT and SAT data
    c. Social participation and values: Participation in voluntary groups, and several indicators of values
    d. Achievement motivation: Expectation to go to college

5. High school background:

   a. Academics: High school program and grades
   b. Activities: Hours worked and jobs worked while in high school as well as extracurricular participation
   c. High school rating: High school rating by students on school curriculum, academic interference, and school ratings

6. College background:

   a. Academics: Students' estimates of college grades
   b. Post-secondary history: Degrees earned

Results

Almost 80 percent of our students enrolled in a post-secondary institution sometime during the first five years after high school graduation.[3] Between the time they left high school and the time of this study, 26.4 percent of the respondents withdrew from a post-secondary institution before program completion. In this paper, we consider only those students who enrolled in a post-secondary institution. In a companion paper (Bills, Schonert, Elliott, 1988) we describe those student who went directly from high school into the labor market.

Two-year Attenders

As noted above, this category includes all of those students who matriculated into a program requiring two years or less. Ninety students (65% of our college attenders) constitute this group. Sixty-one students compose the group "two-year persisters" ("persisters" in the remainder of this section. See Table 1 in Appendix C for summary information). Twenty-six of these were males (42.6%), and 35 were females (57.4%).[4] Twenty-nine students compose the group "two-year non-persisters" ("nonpersisters" in the remainder of this section). Twelve were males (41.4%) and 17 were females (58.6%). Because these numbers roughly correspond to the sex comparison of the full sample, gender seems unrelated to either attendance or persistence in two-year colleges. Among persisters, 39 (63.8%) were married and 22 (36.1%) already had their first child. This compares with 21 (72.4%) of nonpersisters who had married and 8 (24.1%) who have already had their first child.

3. The number of tables required to summarize all relevant information would be cumbersome, so we do not present them here. We summarize the main patterns of interest in the text.

4. There were 69 males (39.7%) and 105 females (60.3%) in our total sample; therefore, percentages regarding gender must be interpreted with caution.

Family Background

Persisters and nonpersisters generally lived with both parents during high school. Fathers of both persisters and nonpersisters were farmers (41% and 38%) and their mothers were primarily homemakers (30% and 28%) or clerical workers (18% and 17%). The highest level of education among most parents was a high school diploma (over 50% of the parents in each group). The fathers of nonpersisters had attended vocational or trade school at higher rates than other parents. The mothers of nonpersisters were about twice as likely to have attended a four-year college (21%) than the mothers of persisters (11.5%).

Significant Other Influence (Familial)

The mothers of persisters were more likely than those of nonpersisters to work full-time before and during our respondents' elementary and high school years. However, among both groups, the majority of mothers did not work before students' elementary school enrollment.

Among persisters, the majority of both mothers and fathers were identified as influencing post-high school plans "a great deal" whereas the majority of parents of nonpersisters were only "somewhat" influential. In addition, the majority of students in both groups indicated that their parents thought that the students should "go to college" following high school.

Other Influences (Non-familial)

Neither persisters nor nonpersisters perceived counselors, military recruiters, college recruiters, or male or female best friends as significantly influencing their post-high school plans. Half of the students in both groups indicated that teachers were "somewhat" influential, and the others indicated that teachers were "not at all" influential. Guidance counselors, teachers, friends, and relatives thought that students in both groups should "go to college" right after high school. Most of the students in both categories indicated that their closest friend in high school planned to attend college.

Student Characteristics

Descriptive. The vast majority of both groups considered themselves "somewhat" or "very" religious. The majority of persisters and nonpersisters had between three and four siblings and currently reside in a rural community or small city.

Achievement Tests. Achievement test scores (K-12) showed significant differences between the two groups. The scores of persisters ranged from a percentile score of 42 to 52, whereas nonpersisters' scores ranged from 55 to 63. The mean ACT composite scores for persisters and nonpersisters were 18.1 (ranging from 9 to 26) and 19.7 (ranging from 15 to 25) respectively. We will address this finding in the discussion.

Social Participation. Very few respondents in either group have participated in organizations other than church and sport-related since leaving high school.

All of the nonpersisters and 87 percent of persisters indicated that finding the right person to marry and having a happy family life was "very important" in their lives. This was followed closely in importance by "success in my line of work" among both groups. This contrasts with the small percentages of respondents (23% of persisters and 17% on nonpersisters) indicating that having lots of money was "very important."

Achievement Motivation. In the twelfth grade, the majority of both groups (82%) expected to go to college. Just four years earlier, 33 percent of persisters and 41 percent of nonpersisters "had not thought about" attending college. In addition, the majority of both groups desired and expected to attend college the fall following their high school graduation. Subsequently, 66 percent of persisters and 79 percent of nonpersisters attended college that fall.

High School Background

Academics. The majority of persisters and nonpersisters were enrolled in a "general" program during high school. Persisters received grades that were "about half B and half C" (34%) or "mostly B" (23%). Nonpersisters received grades that were "half B and half C" (41%) or "half A and half B" (21%).

Activities. Students in both groups worked between 1 and 14 hours a week in lawn care, farm work, manual labor, or service jobs while in high school. Students participated in a variety of extracurricular activities in high school, particularly varsity athletics, band or orchestra, chorus or dance, school newspaper or yearbook, and church activities. Very few students participated in cheerleading, hobby clubs, honorary clubs, subject matter clubs, student government, or junior achievement.

High School Rating. Persisters were more likely than nonpersisters to believe that school should have placed more emphasis on academics (21% to 14%). In addition, persisters were twice as likely to "agree strongly" that school provided them with the counseling necessary to continue their education.

Most students in both groups felt that poor study habits were an interference to their education. Further, students rated their high school as "good" in regard to conditions of buildings and classrooms, library facilities, quality of academic instruction, teacher interest in students, and effective and fair discipline. Nonpersisters were more likely than persisters to characterize school spirit as "excellent" (48% to 39%).

College Background. Although all of our nonpersisters withdrew at least once from a program requiring two years or less, more than one-third (38%) eventually attained a degree. Of this group, two received certificates, four received associate degrees, and five students eventually received bachelor's degrees.

Among persisters, 6 received various types of diplomas, 28 received vocational certificates, 20 received associate degrees, and 8 received bachelor's degrees. One of the persisters was enrolled in a graduate program at the time of this study.

When asked for reasons for withdrawal from a post-secondary institution, nonpersisters overwhelmingly indicated "could not afford to continue" and "career indecision" as reasons for withdrawal.

Turning to college grades, persisters were more likely than nonpersisters to report receiving "half A and half B" (30% to 21%). Equal numbers of both groups reported receiving "mostly B," "half B and half C," or "mostly C." None of the persisters reported receiving grade that were "half C and half D" and "mostly D," whereas several of the nonpersisters reported receiving such grades while in college.

Four-year College Attenders

As noted earlier, this category includes all of those students who matriculated into a program requiring four years or more. Eighty-nine students (51% of our respondents) comprise this group (see Table 2 in Appendix C). Sixty-eight of them are "four-year persisters" ("persisters" in the remainder of this section). Twenty-three of these were males (33.8%), and 45 were females (66.2%). Twenty-one students are "four-year nonpersisters" ("nonpersisters" in the remainder of this section). Of this total, 5 were males (23.8%) and 16 were females (76.2%). Among persisters, 21 (29.5%) were married and 7 (10%) already had their first child. This compares with 10 (47.5%) of nonpersisters who had married and 3 (14.3%) who had already had their first child. Due to the fact that two and four-year attenders are similar on several variables, we will address only those findings where they differ significantly.

Family Background

Remarkably, every four-year nonpersister lived with both parents during high school. This was slightly less likely among persisters. Far more persisters than nonpersisters had fathers engaged in farming (62% to 48%). Among persisters, the largest single group of mothers were employed as homemakers (38%) whereas among nonpersisters the largest single group of mothers were employed as clerical workers (24%). By contrast 22 percent of the mothers of persisters were employed in clerical positions and 14 percent of the mothers of nonpersisters were homemakers.

Among persisters, the highest level of education achieved by over half of their fathers (52%) was high school graduation. This was true for just over a third of their mothers (38%). The mothers of both persisters (41%) and nonpersisters (43%) were more likely than fathers to attend college (22% and 33%).

Significant Other Influence (Familial)

The mothers of nonpersisters were more likely than those of persisters to work full-time prior to and during the students' elementary and high school years. Among both groups, however, the majority of mothers did not work prior to students' elementary school enrollment.

Mothers and fathers were identified by the majority of both groups as influencing post-high school plans "a great deal." In addition, students in both groups indicated that the majority of their parents thought that the students should "go to college" following high school.

Other Influences (Non-familial)

Persisters were more than twice as likely to identify teachers as influencing them "a great deal" than were nonpersisters (25% to 10%). Half of the students in both groups indicated that teachers were "somewhat" influential.

Student Characteristics

Descriptive. The majority of persisters and nonpersisters had between two and three siblings and currently reside in a rural community or a small city (non-suburban).

Achievement Tests. The achievement test scores (K-12) of persisters and nonpersisters were similar. The scores of persisters ranged from a percentile score of 69 to 75, whereas nonpersisters' scores ranged from 63 to 76. The mean ACT composite scores for persisters and nonpersisters were 22.5 (ranging from 13 to 33) and 20.9 (ranging from 11 to 33), respectively.

Social Participation. Persisters were almost twice as likely as nonpersisters to participate in a sorority or a fraternity (18% to 9%).

Ninety percent of persisters and 81 percent on nonpersisters indicated that finding the right person to marry and having a happy family life was "very important" in their lives. This was matched in importance by "success in my line of work" (90%) among persisters. Seventy-six percent of nonpersisters rated "success in my line of work," "steady friendships," and "steady work" as "very important." Surprisingly, only 21 percent of persisters and 19 percent of nonpersisters indicated that having lots of money was "very important."

Achievement Motivation. In the twelfth grade, the vast majority of both persisters and nonpersisters expected to go to college (97% and 91%). Just four years earlier, almost twice as many nonpersisters as persisters "had not though about" attending college (29% to 15%). In addition, the overwhelming majority of both groups desired and expected to attend college the fall following high school graduation. Subsequently, 87 percent of persisters and 86 percent of nonpersisters attended college that fall.

High School Background

Academics. The majority of nonpersisters were enrolled in a "college preparatory" program during high school whereas persisters were most often enrolled in a "general" program during high school. Persisters received grades that were "mostly A" (40%), or "half A and half B" (24%). By comparison, nonpersisters received grades that were "mostly B" (34%), "half A and half B" (24%), or "mostly A" (24%).

Activities. While in high school, the single largest group of persisters worked 1 to 4 hours a week (35%), compared with nonpersisters where the largest group worked 15 to 21 hours a week (33%). In both groups, respondents worked in lawn care, farm work, manual labor, or service jobs. Persisters and nonpersisters participated in similar numbers of activities while in high school. These included varsity athletics, debating or drama, band or orchestra, chorus or dance, school newspaper or yearbook, student government, and church activities. Oddly, our group of nonpersisters were consistently more likely to hold leadership positions in the organizations they joined.

High School Rating. Persisters were somewhat more likely than nonpersisters to credit their school with providing them with the counseling they needed to continue their education (29% to 19%).

Persisters were more critical than were nonpersisters of poor teaching as an interference in their education (68% to 52%). Most students in both groups believed that poor study habits were an interference. Furthermore, both groups of students rated their high school as "good" in regard to conditions of buildings and classrooms, library facilities, quality of academic instruction, teacher interest in students, and school spirit.

College Background. Although all of our nonpersisters withdrew at least once from a program requiring four years or more, almost three-quarters (71%) of them eventually earned a degree. Of this group, three earned vocational certificates, three received associate degrees, and eight students eventually received received bachelor's degrees. In addition, one nonpersister was enrolled in a graduate program at the time of the study.

Among persisters, two earned vocational certificates, eight received associate degrees, and fifty-eight earned bachelor's degrees. Three of the persisters were enrolled in a graduate program at the time of this study.

When asked for reasons for withdrawal from a post-secondary institution, nonpersisters overwhelmingly indicated career indecision and financial constraints as their reasons for withdrawal. If nonpersisters changed post-secondary institutions, they gave most often as their reason that they either "wanted a less expensive school" or "wanted better career opportunities."

In regard to college grades, persisters were more likely than nonpersisters to report earning "mostly B" (32% to 19%). The largest single group of nonpersisters reported earning "half B and half C." Significantly more persisters than nonpersisters reported receiving "half A and half B" (21% to 5%), but equal numbers of both groups reported earning "mostly A."

Discussion

Based on the findings of the present study, many common assumptions about the educational attainment of rural youth may be mistaken. Of the rural students who matriculated into post-secondary institutions, three-fourths persisted until degree completion. Using this as our measure of educational attainment, we found it surprising that among the 139 students who matriculated into a post-secondary institution, a total of 156 degrees were earned.[5] This is especially striking in that almost half of all students matriculating into higher education nationwide will leave without ever completing a degree (Tinto, 1987). What accounts for the large percentage of degree earners in rural Iowa?

There are two plausible explanations for these high persistence rates. One of these lies in the rural family. Austin (1979) suggests that the home is still a powerful determinant of a student's educational development. Almost all of the students in our study grew up in a traditional family unit. Almost all of our respondents who attended post-secondary institutions chose to attend an institution in Iowa. Furthermore, only six percent of our college-going respondents attended post-secondary institutions outside of Iowa. This finding may indicate the strong pull toward family experienced by the rural youth in our study.

5. Several students in our sample had earned more than one degree.

Our findings indicate that the parents of rural Iowa youth exert more influence than any other group on the educational decisions of students. Apparently they are influencing their offspring toward higher education. Considering that the majority of parents had little or no post-secondary education and most are employed in farming or blue-collar occupations, it appears that explanations for the high persistence rates must be identified elsewhere within the family. Recently, the focus of research has shifted from the influence of parental educational and occupational level to the influence of what parents actually do in the home to support their child's education (Schiamberg et al. 1988). Additional research is needed to identify specific parental behaviors that facilitate persistence.

Perseverance may be a characteristic of the traditional value system found in our rural youth. It may also be an important component for succeeding in college. Although many of our students noted the difficulties they faced at college, such as poor study habits and difficult courses, the majority of them completed their education. Perseverance is further demonstrated by the fact that most of these students balanced extensive extracurricular involvement with a considerable amount of paid employment while in high school. Perhaps possessing a high degree of perseverance fostered by the traditional rural family allowed the rural students to overcome many of the obstacles that would otherwise have interfered with their educational attainment.

The rural school provides a second explanation for the high persistence rates of rural Iowa youth. Our findings suggest that the way in which rural students perceive their rural schools may have an influence on performance. In spite of our own observation that the majority of the schools in this study were aged and lacked updated facilities, students were positive in their assessment of school facilities. Indeed, the academic and community "ethos" evidenced in rural Iowa schools may be contributing to students' perceptions of their schools (Lightfoot, 1983). That is, the students' perceptions of school climate and sense of belonging may outweigh in their minds the importance of more "objective" indicators of school quality as determinants of what constitutes a good educational experience. We do not intend this as a rationale for a failure to invest in school facilities, but rather as a recognition that more goes into making a good school than tangible resources.

Rural communities and schools clearly differ from schools in urban areas. For instance, we found that rural Iowa students participate in a significant number and variety of high school extracurricular activities. This is consistent with research indicating that students from smaller rural school engage in more extracurricular activities and assume more leadership roles than do students from larger schools (for a review of this research, see Andre & Holland, 1987). Downey (1980) associates a high level of involvement among rural youth with developing increased perseverance. Perhaps this perseverance, developed through the rural family and fostered through school involvement, is readily transferred to other educational experiences, specifically post-secondary persistence. This certainly merits examination in future research.

While many characteristics of our nonpersisters warrant close attention, one of our most notable findings was the number of nonpersisters eventually earning a degree. Indeed, out of a total of 50 nonpersisters, both two-and four-year, 26 (52%) eventually obtained a college degree. These results are remarkable given previous research on rural youth in higher education. As noted, much of the research on the educational attainment of rural youth has been discouraging. In the course of critically evaluating this research, it became obvious to us that many of the finding in previous studies were not descriptive of rural youth from Iowa's small rural schools, or, we suspect, in much of the rural Midwest.

Part of the reason that our results differ from much earlier work may be due to conceptual confusion in some earlier studies. Tinto (1987) has questioned the accuracy and usefulness of existing data on student withdrawal. As he (1987) contends:

> Not all student departures from institutions of higher education lead to withdrawal from the broader system of higher education. Many institutional departures result in the migration of persons to other institutions of higher education (institutional transfer). Others result in only a temporary withdrawal from education (stopouts). In both cases, many institutional departures eventually earn their college degrees from other institutions of higher education, though quite a few require more than four years to do so. (p. 9).

Further, Tinto (1987) notes that individual commitments to education take two major forms: goal and institutional. Among rural students pursuing higher education, it is likely that those students who entered an institution and persisted until graduation exhibited a high degree of commitment both to their institution and to the goal of graduation. A higher degree of institutional commitment may be demonstrated by

higher rates of sorority and fraternity membership among the four-year persisters in our study. Astin (1984) argues that greater levels of student involvement in post-secondary institutions are associated with higher levels of integration and development and, thus, will increase the likelihood that the student will persist in that institution. On the other hand, those students who transferred from one institution to another before earning their degree probably possessed less commitment to the particular institution, along with less involvement, and a greater commitment to the goal of graduation.

Research in the past has indicated that rural students are "at risk" for academic failure and college attrition (Aylesworth & Bloom, 1976; Brown, 1985). Of our respondents who withdrew from a post-secondary program before completion, the majority were enrolled in programs requiring two years or less.

As mentioned above, two-year nonpersisters included students who withdrew from the institution and transferred to another two- or four-year institution as well as those who departed from the entire educational system. Several factors may help account for withdrawal decisions among this group. Every two-year nonpersister placed marriage and family life far above other values. (Indeed, three-fourths of them were married, the highest marriage rate among all respondents in our study). Perhaps traditional values seriously conflict with the educational goals of this group. Consistent with this is the fact that students in this group exhibited lower levels of achievement motivation as early as the eighth grade when compared to persisters. Further, two-year nonpersisters perceived themselves as being ill-served in terms of educational and occupational counseling in high school. Considering that a significant number of these students withdrew for financial reasons and/or career indecision, it appears that they may have failed to receive much needed career and financial aid counseling.

It should be noted, however, that 11 of the nonpersisters eventually did attain two- or four-year degrees. This finding may be related to the fact that nonpersisters had higher achievement tests scores than persisters, indicating that those who voluntarily withdraw are more academically capable, and, therefore, tend to be more critical of their college experience.

Another notable finding was the number of our four-year nonpersisters who eventually attained a degree. Almost 80 percent of those students who withdrew from a four-year institution went on to complete a program. This includes completion of both two- and four-year degrees. For instance, many of our students who withdrew from a four-year program transferred to a two-year institution. Some students later transferred back to a four-year institution. Perhaps their initial decisions to enroll in four-year institutions were inappropriate and they would have been better suited to a two-year institution. Their decision to enter a four-year institution may have been influenced by greater participation among this group in college preparatory programs in high school. Indeed, students enrolled in college preparatory courses may mistakenly assume that they are expected to enroll in a four-year institution immediately after high school, when some may be better served by attending a two-year institution. Also, one must not underestimate the effects of the separation from the rural family on decisions to withdraw. We speculate that among nonpersisters' reasons for withdrawal is the desire to relocate closer to their family. As noted earlier, rural family values play a big role in the lives of rural youth. For example, four-year nonpersisters were twice as likely to be married than were four-year persisters. This pull toward family and marriage may be stronger in our group of nonpersisters and, in turn, have a profound effect on educational attainment.

Four-year nonpersisters also indicated that they withdrew because of financial reasons. It may be that these students would have benefitted from counseling to first earn an associate's degree at a less expensive community college and later transfer to a four-year institution. Research needs to determine the effects (positive and negative) of varied attendance patterns on persistence among rural students.

Unexpectedly, we found that our group of four-year nonpersisters were more often leaders in extracurricular activities during high school. One would intuitively think that four-year persisters would more likely be leaders. However, perhaps four-year nonpersisters were so involved with extracurricular activities that they gave less priority to planning their educational and career goals. In addition, nonpersisters worked more hours in paid employment during high school which would further conflict with future planning. As mentioned previously, four-years nonpersisters were considerably less likely than persisters to have given much thought to college while in the eighth grade. Consequently, these four-year nonpersisters may have been ill-prepared when making college-related decisions, including choice of major. Evidence supporting this is found

from our findings indicating a preponderance of program changes (changing majors) among four-year nonpersisters. Certainly, this needs to be investigated more fully.

In summary, it appears that the educational attainment of rural Iowa youth is non-reflective of rural youth as typically portrayed in the literature. In part, this may be due to failure of earlier research to distinguish different rural settings. Further, although the majority of the rural youth in our study who withdrew from a post-secondary institution eventually earned a degree, future research needs to examine more closely those rural youth who leave the post-secondary system entirely. In addition, the majority of our respondents, both persisters and nonpersisters, indicated serious dissatisfaction with the career counseling they received in high school. Certainly, research in the future must examine the significance of such perceptions on educational decisions.

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Appendix A

Methodology

Sample Selection

We began our process of sample selection by randomly selecting 11 rural Iowa school districts with enrollments of less 300 from a total of 98 such districts (Iowa Education Directory, 1986-1987 School Year). The choice of districts of this particular size was made, in part, because of calls from researchers for a database on this sizable group (Nachtigal, 1979; Helge, 1983). Additionally, these small rural districts remain politically vulnerable to reorganization efforts and other legislative action intended to improve their effectiveness and inefficiency.

Our initial sampling frame consisted of 236 rural Iowa students from the graduating class of 1983. This particular group was chosen because although educational and occupational careers are not firmly established five years out of high school, by this point students can be expected to be on at least somewhat established "pathways." Moreover, we felt that they were close enough to their high school experiences to be able to reflect upon them accurately.

Initially, we contacted superintendents in each of the 11 school districts via telephone to explain the purpose of the study. We asked the superintendents for the names, addresses, and telephone numbers of all students from their district in the graduating class of 1983. In the event that student addresses and telephone numbers were not available, we requested parents' addresses and phone numbers. We also requested that each superintendent provide a cover letter that we could copy and send along with the survey to demonstrate the school district's support of our research. All of the superintendents agreed to participate in the study.

Following the phone contact, a letter reiterating our telephone conversation was sent to each superintendent as well as the high school principal. In this letter, we again specified the information we requested (i.e., student names, addresses, and telephone numbers). In addition, we included a sample copy of the cover letter that we wished them to prepare.

Unfortunately, the lists of students that were sent to us rarely contained all of the information we needed. Only a few of the school districts gave students' phone numbers, and most provided students' names and parents' addresses. At times this made it almost impossible to use directory assistance to get the phone numbers of the students. We called superintendents again to request this information, but many still sent parental phone numbers.

Survey Instrument

A survey instrument was developed to gain information from each high school graduate for the years 1983 through 1987. We selected survey items from the ongoing *High School and Beyond* study (National Center for Educational Statistics, 1983). These items have all been carefully field tested and have highly satisfactory reliability and validity.

We chose our items primarily from the following areas: high school background, parental educational and occupational background, educational attainment, employment history, attitudes and interests, and participation in voluntary groups. We selected these areas because of their demonstrated relationships with our outcomes of interest; namely, the relationship of educational aspirations and attainment to employment (Brodd et. al. 1985; Brown, 1985; Fagg, 1982; Farris, Boyd, & Shoffner, 1985; McIntire, Cobb, & Pratt, 1986). We pretested the survey with a sample of individuals from a population similar to our proposed research sample.

In addition, we chose a cover design directly related to rural Iowa youth and included a transcript release form for each participant to sign on the inside front cover.

Data Collection

Precontact. We began our data collection procedure with a precontact of each student. As stated earlier, we had difficulty obtaining the majority of student telephone numbers. As a result, prior to telephoning students, we spent a great deal of time calling parents for students' phone numbers. Still, we believe this effort was worthwhile. Several studies demonstrated that contacting respondents before sending a survey significantly increases response rates (Linsky, 1975).

Initial Mailing. After a precontact, we then sent the survey to each student. The survey was accompanied by a cover letter from the researchers, a cover letter from the district superintendent or principal, and a self-addressed, stamped envelope. We sent a different cover letter to students whom we were unable to contact by phone.

First Follow-Up. One week after the initial mailing, we sent a postcard to remind the students to complete the survey or to thank them for their participation. We included our phone number on this postcard and urged the student to call us collect if they had misplaced the survey.

Second Follow-Up. The second follow-up occurred three weeks after the initial mailing. As with the initial mailing, we included the survey and a self-addressed, stamped envelope. We also included a different cover letter that specifically addressed the importance of the research study.

Third Follow-Up. Seven weeks after the initial mailing, we executed a third follow-up. This follow-up procedure included sending a survey, a self-addressed, stamped envelope, and a new cover letter by certified mail.

On-site Visits. The next step in our data collection strategy consisted of on-site visits to participating schools to collect transcript information on each respondent. The information we collected included the following: (a) achievement test scores from kindergarten through the twelfth grade, (b) ACT scores, (c) kindergarten through twelfth grade absenteeism rates, (d) graduating class rank, (e) high school grade point average, and (e) number of failing grades in high school. In order to check the accuracy of students' responses, we collected information regarding student participation in extracurricular activities as well as parent education level and occupation. We spoke at length with school personnel (i.e., superintendent, principal, or counselor) to determine the dropout rate for the class of 1983 as well as to select further information about the students and the school. We found these often informal conversations to be exceptionally valuable in helping us understand our findings.

A "Principal Survey" was left with each principal or primary administrator during our site visits. All 11 administrators returned the survey. This survey consisted of questions relating to the "nature of the human environment in and around school, interaction among staff, students, and parents, level of academic involvement between students and teachers, discipline and reward structures." Additionally, each administrator was asked to describe how closely their responses reflected the conditions that existed while our sample attended high school.

Nonrespondents

Several weeks after we had completed the third follow-up, we made attempts to contact our nonrespondents. We were able to contact 32% of the nonrespondents for whom we had current phone numbers. During our telephone interview with the nonrespondents, we asked them several selected questions from our survey. The general finding of this follow-up is that our nonrespondents did not differ significantly from our respondents on a number of important dimensions (i.e., school achievement, class rank, extracurricular participation in high school, occupation, and educational attainment). This confirmed that our respondent sample was representative of rural Iowa youth from school districts with an enrollment of less than 300.

Data Processing and Analysis

Data from the survey and the transcript information were coded into machine-readable form preparatory to statistical analysis. Data analysis were performed using Statistical Package for the Social Sciences (SPSSX) computer program. The data were nominal in nature, thus frequencies were the most commonly used statistical procedure. In subsequent reports we will analyze the data in more detail using multi-variate procedures.

Appendix B

Questionnaire

Rural Iowa's Class of 1983

Thank you for accepting our invitation to participate in RURAL PATHWAYS. This is a voluntary but important survey. We are pleased that you have agreed to participate. Your cooperation and participation will help us learn more about the experiences of rural high school students and their plans for the future.

All information which would permit identification of the individual will be held in strict confidence, will be used only by persons engaged in and for the purposes of this survey, and will not be disclosed or released to others for any purposes except as required by law.

ATTENTION!

Consent Form

As part of this study, you are requested to grant permission for access to your school records. All information collected will be confidential and only the researchers will have access to this information.

I have read and understand the above statement and the attached letter. I give permission to have my school records released to the researchers involved in this study.

Your Name (please print)_____

Your Signature_____

Date_____

That's all the questions we have. Thank you for your time and participation. Please write in anything else that you think we should know about rural schools and their effect on you.

NOTE: Have you read and signed the transcript release form found on the inside front cover of this survey?

GENERAL INSTRUCTIONS
PLEASE READ EACH QUESTION CAREFULLY.

It is important that you follow the directions for responding to each kind of question. These are:

[CIRCLE ONE]
What is the color of your eyes? [CIRCLE ONE]

Brown..... 1
Blue..... 2
Green..... (3)
Another color..... 4

If the color of your eyes is green, you would circle the number to the right of "Green."

[CIRCLE ALL THAT APPLY]
Last week, did you do any of the following? [CIRCLE ALL THAT APPLY]

a. See a play..... 1
b. Go to a movie..... (2)
c. Attend a sporting event.. (3)

If you went to a movie and attended a sporting event last week, you would circle the two numbers as shown.

[CIRCLE ONE NUMBER FOR EACH LINE]
Do you plan to do any of the following next week? [CIRCLE ONE NUMBER FOR EACH LINE]

	Yes	Not Sure	No
a. Visit a relative	1	2	(3)
b. Go to a museum	1	(2)	3
c. Study at a friend's house	(1)	2	3

If you plan to study at a friend's house, do not plan to visit a relative, and are not sure about going to a museum next week, you would circle one number on each line as shown

[WRITE IN]
What is your favorite sport? [CIRCLE ONE]

Football.....1
Basketball.....2
Baseball.....3
Other (WRITE IN) Ice Hockey

If your favorite sport is ice hockey, you would circle the number to the right of "Other" and write "Ice Hockey" on the line as shown.

Some questions ask what you were doing during a specific time period. For example, "What were you doing during September 1983?" Please watch for these time references and make sure you are thinking about the correct month and year.

THANK YOU FOR YOUR COOPERATION

1. You may skip any question you do not wish to answer.
2. We are asking you these questions in order to gather information about what happens to rural students as they move out of high school and make decisions about post-secondary education and work.
3. Your responses will be merged with those of other students, and the answers you give will never be identified as yours.

WE HOPE YOU WILL ANSWER EVERY QUESTION, BUT YOU MAY SKIP ANY QUESTION YOU DO NOT WISH TO ANSWER.

SECTION I.
HIGH SCHOOL BACKGROUND

1. Which of the following best describes your high school program? [CIRCLE ONE]

General	1
Academic or college preparatory	2
Vocational (Occupational preparation)	
Agricultural occupations	3
Business or office occupations	4
Distributive education	5
Health occupations	6
Home economics occupations	7
Technical occupations	8
Trade or industrial occupations	9
Other_____	

2. Have you taken any high school courses in the following areas which have equipped you for a beginning job in that area? [CIRCLE ONE NUMBER FOR EACH LINE]

	Yes	No
a. Agriculture, including horticulture	1	2
b. Auto mechanics	1	2
c. Commercial arts	1	2
d. Computer programming or computer operations	1	2
e. Construction trades:		
1) Carpentry, cabinet making, or millwork	1	2
2) Electrical	1	2
3) Masonry	1	2
4) Plumbing	1	2
f. Drafting	1	2
g. Electronics	1	2
h. Home economics, including dietetics and child care	1	2
i. Machine shop	1	2
j. Sales or merchandising	1	2
k. Secretarial, stenographic, typing, or other office work	1	2
l. Welding	1	2
m. Other (Describe)_____		

3. Which of the following best describes your grades in high school? [CIRCLE ONE]

Mostly A (a numerical average of 90-100)	1
About half A and half B (85-89)	2
Mostly B (80-84)	3
About half B and half C (75-79)	4
Mostly C (70-74)	5
About half C and half D (65-69)	6
Mostly D (60-64)	7
Mostly below D (below 60)	8

SECTION VII
PERSONAL HISTORY

1. To what extent have you voluntarily participated in the following groups since you left high school? (By voluntarily, we mean you are not an employee of the group; by active participant, we mean that you attend the meetings or events; by member only, we mean that you are on a mailing or telephone list so that you are kept informed of meetings and events.) [CIRCLE ONE NUMBER FOR EACH LINE]

	Active participant	Member only	Not at all
a. Union, farm trade or professional association	1	2	3
b. Church or church-related activities	1	2	3
c. A sorority or fraternity	1	2	3
d. A social, hobby, garden, or card playing group	1	2	3
e. Sport teams or sport clubs	1	2	3
f. A literary, art, discussion or study group	1	2	3
g. A student government, newspaper, journal or yearbook staff	1	2	3
h. A drama club or theater group	1	2	3
i. An orchestra, band, chorus or other musical group	1	2	3
j. Political organization	1	2	3
k. Another voluntary group in which I participate (DESCRIBE)_____	1	2	

2. How important is each of the following to you in your life? [CIRCLE ONE NUMBER FOR EACH LINE]

	Not at all	Somewhat important	Very important
a. Being successful in my line of work	1	2	3
b. Finding the right person to marry and having a happy family life	1	2	3
c. Having lots of money	1	2	3
d. Having strong friendships	1	2	3
e. Being able to find steady work	1	2	3
f. Being a leader in my community	1	2	3
g. Being able to give my children better opportunities than I've had	1	2	3
h. Living close to parents and relatives	1	2	3
i. Getting away from this area of the country	1	2	3
j. Working to correct social and economic inequalities	1	2	3
k. Having children	1	2	3
l. Having leisure time to enjoy my own interests	1	2	3

(CONTINUE TO NEXT PAGE)

4 Estimate how well you have done in all of your course work or programs during the period since you left high school. [CIRCLE ONE]

Mostly A (3.75-4.00 grade point average)..... 1
About half A and half B (3.25-3.74 grade point average)..... 2
Mostly B (2.75-3.24 grade point average)..... 3
About half B and half C (2.25-2.74 grade point average)..... 4
Mostly C (1.75-2.24 grade point average)..... 5
About half C and half D (1.25-1.74 grade point average)..... 6
Mostly D or below (less than 1.25)..... 7
Have not taken any courses for which grades were given..... 8

(CONTINUE TO SECTION VII)

4. Have you taken any of the following tests? [CIRCLE ONE NUMBER FOR EACH LINE]

	Yes	No
a. College Board SAT test	1	2
b. ACT tests	1	2
c. Armed Services Vocational Aptitude Battery (ASVAB)	1	2

5. Which of the job categories below comes closest to the kind of work you did for pay while in high school? (If more than one kind of work, choose all that apply.) [CIRCLE ALL THAT APPLY]

Did not work for pay..... 1
Lawn work or odd jobs..... 2
Waiter or waitress in a restaurant or drive-in..... 3
Babysitting or child care..... 4
Farm or agricultural work..... 5
Factory work, unskilled or semi-skilled..... 6
Skilled trade..... 7
Other manual labor..... 8
Store clerk or salesperson..... 9
Office or clerical..... 10
Hospital or health..... 11

Other_____

6. While in high school, about how many hours per week on the average did you work for pay outside your own home? [CIRCLE ONE]

None..... 1
1-4 hours per week..... 2
5-14 hours per week..... 3
15-21 hours per week..... 4
22-29 hours per week..... 5
30-34 hours per week..... 6
35 hours or more per week..... 7

7. How much do you agree with each of the following statements about your high school? [CIRCLE ONE NUMBER FOR EACH LINE]

	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly	Does not apply
a. School should have placed more emphasis on basic academic subjects (math, science, English, etc.)	1	2	3	4	5
b. School should have placed more emphasis on vocational and technical programs	1	2	3	4	5
c. School did not offer enough practical work experience	1	2	3	4	5
d. School provided me with counseling that helped me continue my education	1	2	3	4	5
e. School provided me with counseling that helped me find employment	1	2	3	4	5

8. Did you participate in any of the following types of activities either in or out of high school? [CIRCLE ONE NUMBER FOR EACH LINE]

	Did not participate	Participated actively (but not as a leader or officer)	Participated as a leader or officer
a. Varsity athletic teams	1	2	3
b. Other athletic teams - in or out of school	1	2	3
c. Cheer leaders, pep club, majorettes	1	2	3
d. Debating or drama	1	2	3
e. Band or orchestra	1	2	3
f. Chorus or dance	1	2	3
g. Hobby clubs such as photography, model building, hot rod, electronics, crafts	1	2	3
h. Honorary clubs, such as Beta Club or National Honor Society	1	2	3
i. School newspaper, magazine, yearbook, annual	1	2	3
j. School subject-matter clubs, such as science, history, language, business, art	1	2	3
k. Student council, student government, political club	1	2	3
l. Vocational education clubs, such as Future Homemakers, Teachers, Future Farmers of America, DECA, FBLA, or VICA	1	2	3
m. Youth organizations in the community, such as Scouts, Y, etc	1	2	3
n. Church activities, including youth groups	1	2	3
o. Junior Achievement	1	2	3

9. Which of the following people lived in the same household with you during high school? [CIRCLE ALL THAT APPLY]

a. I lived alone 1
b. Father 2
c. Other male guardian (step-father or foster father) 3
d. Mother 4
e. Other female guardian (step-mother or foster mother) 5
f. Brother(s) and/or sister(s) (including step- or half-) 6
g. Grandparent(s) 7
h. My husband/wife 8
i. My child or my children 9
j. Other relative(s) (children or adults) 10
k. Non-relative(s) (children or adults) 11

2. Between the time you left high school and the present time, have you withdrawn from any school before you completed your studies at that school? [CIRCLE ONE]

Yes ..... 1 [If "yes", please answer next question.]
No 2

a. What were your reasons for withdrawing? [CIRCLE ONE NUMBER FOR EACH LINE]

	My reasons	Not my reasons
1) I could not afford to go full time or continue in school	1	2
2) I was working full time	1	2
3) I was working part time	1	2
4) I got married, had a baby, or took on other family responsibilities	1	2
5) I was undecided about career plans	1	2
6) There was too much pressure or strain with my load of school work	1	2
7) The school program was not relevant to the work I wanted to do	1	2
8) I was failing or not doing as well as I wanted	1	2
9) Other (EXPLAIN)_____		

3. If you changed post-secondary institutions (college, jr. college, vocational institutes), what were your reasons for changing schools? (If you have changed schools more than once, please answer for the most recent time.) [CIRCLE ONE NUMBER FOR EACH LINE]

	My reasons	Not my reasons
a. Did not change schools	1	2
b. My interests changed, and my former school did not offer the course of study I wanted	1	2
c. Wanted to attend a less expensive school	1	2
d. Wanted to be at a smaller school	1	2
e. Wanted to be at a larger school	1	2
f. Wanted to attend school closer to home	1	2
g. Wanted to attend a school farther away from home	1	2
h. Wanted to attend a school that would give me better career opportunities	1	2
i. Wanted to attend a more prestigious school	1	2
j. Wanted to attend a school where I could maximize my intellectual and personal development	1	2
k. More group or social activities of interest	1	2
l. Transferred from a two-year to a four-year school to continue my education	1	2
m. Family responsibilities	1	2
n. Health problems or physical handicap	1	2
o. Wanted to transfer to an academically less demanding school	1	2
p. Wanted to transfer to a school that would prepare me more quickly for an occupation	1	2
q. Other (EXPLAIN)_____		

SECTION VI
EDUCATIONAL HISTORY

1. We would like information about all of the schools you have gone to since you left high school. Please start with the first school you went to after high school.

a. First year after high school:
Name of school entered: _____
Course of study (program or major): _____
Expected length of academic program: _____
Did you withdraw from this school before completing your planned program..... Yes 1 No 2
Completed program/degree or certificate earned (describe): _____
_____

b. Second year after high school: Yes No
Continued in above mentioned program..... 1 2
Name of school entered: _____
Course of study (program or major): _____
Expected length of academic program: _____
Did you withdraw from this school before completing your planned program..... Yes 1 No 2
Completed program/degree or certificate earned (describe): _____
_____

c. Third year after high school: Yes No
Continued in above mentioned program..... 1 2
Name of school entered: _____
Course of study (program or major): _____
Expected length of academic program: _____
Did you withdraw from this school before completing your planned program..... Yes 1 No 2
Completed program/degree or certificate earned (describe): _____
_____

d. Fourth year after high school: Yes No
Continued in above mentioned program..... 1 2
Name of school entered: _____
Course of study (program or major): _____
Expected length of academic program: _____
Did you withdraw from this school before completing your planned program..... Yes 1 No 2
Completed program/degree or certificate earned (describe): _____
_____

e. Fifth year after high school: Yes No
Continued in above mentioned program..... 1 2
Name of school entered: _____
Course of study (program or major): _____
Expected length of academic program: _____
Did you withdraw from this school before completing your planned program..... Yes 1 No 2
Completed program/degree or certificate earned (describe): _____
_____

10. Did your mother (stepmother or female guardian) usually work during the following periods of your life? [CIRCLE ONE NUMBER FOR EACH LINE]

	Did not work	Worked part time	Worked full time	Don't know	Does not apply
a. When you were in high school	1	2	3	4	5
b. When you were in elementary school	1	2	3	4	5
c. Before you went to elementary school	1	2	3	4	5

(CONTINUE TO NEXT PAGE)

SECTION II
GENERAL BACKGROUND INFORMATION

The next questions ask about your parents or guardians. Please answer for those parents with whom you lived in high school. For example, if you have both a natural father and a step-father or other male guardian, answer for the male who lived in the same household with you. If you did not live with either, use the category--Did not live with father (stepfather or male guardian).

Please answer for the same persons in later questions that ask about your father or your mother.

1. Please describe below the job held by your father (stepfather or male guardian) while you were in high school.
(WRITE IN)_____

Which of the categories below comes closest to describing your father's job? [CIRCLE ONE]

Did not live with father (stepfather or male guardian)..... 1

CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent..... 2
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter..... 3
FARMER, FARM MANAGER..... 4
HOMEMAKER OR HOUSEWIFE ONLY..... 5
LABORER such as construction worker, car washer, sanitary worker, farm laborer..... 6
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official..... 7
MILITARY such as career officer, enlisted man or woman in the Armed Forces..... 8
OPERATIVE such meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver..... 9
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher..... 10
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher..... 11
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner..... 12
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter..... 13
SALES such as salesperson, advertising or insurance agent, real estate broker..... 14
SCHOOL TEACHER such as elementary or secondary..... 15
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter..... 16
TECHNICAL such as draftsman, medical or dental technician, computer programmer..... 17
Never worked..... 18
Don't know..... 19

7. Since leaving high school, have you tried to enlist into any branch of the Armed Forces? [CIRCLE ONE]

Yes..... 1
No, but I plan to try to enlist soon..... 2 (If "Yes", answer a and b below)
No, and I don't plan to enlist..... 3

a. When did you FIRST enter active military service?

Month_____
Year_____

b. What was the date of your LAST separation from active service?

Month_____
Year_____

(CONTINUE TO SECTION VI)

b. Second year after graduation:

Occupation_____

Location_____

Salary_____ __weekly __monthly

Opportunity for promotion (DESCRIBE)_____
_____

c. Third year after graduation:

Occupation_____

Location_____

Salary_____ __weekly __monthly

Opportunity for promotion (DESCRIBE)_____
_____

d. Fourth year after graduation:

Occupation_____

Location_____

Salary_____ __weekly __monthly

Opportunity for promotion (DESCRIBE)_____
_____

e. Current occupation:

Occupation_____

Location_____

Salary_____ __weekly __monthly

Opportunity for promotion (DESCRIBE)_____
_____

6. How far is your current employment site from the city or community where you lived as a senior in high school? [CIRCLE ONE]

Same place I lived in when I was a senior in high school 1
Less than 50 miles 2
50 to 99 miles 3
100 to 199 miles 4
200 to 499 miles 5
500 miles or more 6

2. What was the highest level of education your father (stepfather or male guardian) completed? [CIRCLE ONE]

Did not live with father (stepfather or male guardian) 1
Less than high school graduation 2
High school graduation only 3
Vocational, trade, or business school after high school
- [Less than two years 4
- [Two years or more 5

College program
- [Less than two years of college 6
- [Two or more years of college (including 2-year degree) 7
- [Finished college (4-or 5-yr degree 8
- [Master's degree or equivalent 9
- [Ph.D., M.D. or other advanced professional degree 10

Don't know 11

3. Please describe below the job held by your mother (stepmother or female guardian) while you were in high school. (WRITE IN)_____
_____

Which of the categories below comes closest to describing your mother's job? [CIRCLE ONE]

Did not live with father (stepfather or male guardian) 1
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent 2
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter 3
FARMER, FARM MANAGER 4
HOMEMAKER OR HOUSEWIFE ONLY 5
LABORER such as construction worker, car washer, sanitary worker, farm laborer 6
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official 7
MILITARY such as career officer, enlisted man or woman in the Armed Forces 8
OPERATIVE such meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver 9
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher 10
PROFESSIONAL such as clergyman, dentist, physician, lawyer, scientist, college teacher 11
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner 12
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter 13
SALES such as salesperson, advertising or insurance agent, real estate broker 14
SCHOOL TEACHER such as elementary or secondary 15
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter 16
TECHNICAL such as draftsman, medical or dental technician, computer programmer 17
Never worked 18
Don't know 19

4. What was the highest level of education your mother (stepmother or female guardian) completed? [CIRCLE ONE]

Did not live with mother (stepmother or female guardian)		1
Less than high school graduation		2
High school graduation only		3
Vocational, trade, or business school after high school	[Less than two years	4
	[Two years or more	5
College program	[Less than two years of college	6
	[Two or more years of college (including 2-year degree)	7
	[Finished college (4- or 5-yr degree	8
	[Master's degree or equivalent	9
	[Ph.D., M.D. or other advanced professional degree	10
Don't know		11

5. How much did each of the following persons influence your plans for after high school? [CIRCLE ONE NUMBER FOR EACH LINE]

	Not at all	Somewhat	A great deal
a. Your father	1	2	3
b. Your mother	1	2	3
c. A guidance counselor	1	2	3
d. Teachers	1	2	3
e. Military recruiters	1	2	3
f. College recruiters	1	2	3
g. Male best friend	1	2	3
h. Female best friend	1	2	3

6. What did the following people think you should have done after high school? [CIRCLE ONE NUMBER FOR EACH LINE]

	Go to college	Get a full-time job	Enter a trade school or an apprenticeship	Enter military service	They don't care	I don't know	Does not apply
a. Your father	1	2	3	4	5	6	7
b. Your mother	1	2	3	4	5	6	7
c. A guidance counselor	1	2	3	4	5	6	7
d. Teachers	1	2	3	4	5	6	7
e. Friends or relatives about your own age	1	2	3	4	5	6	7

7. Please think of your closest friend in high school. As far as you know, are the following statements true or false for him/her? [CIRCLE ONE NUMBER FOR EACH LINE]

	True	False
a. Got good grades	1	2
b. Was interested in school	1	2
c. Attended classes regularly	1	2
d. Planned to go to college	1	2
e. Was popular with others	1	2

SECTION V
EMPLOYMENT HISTORY

Please start with the first job you held after high school, even if it started while you were still in school. Then go on to the next job you held and answer the questions about that job.

BE SURE TO INCLUDE YOUR CURRENT JOB

If you have MORE THAN ONE JOB AT A TIME, please list them separately.

If you have had TOO MANY JOBS TO FIT, please make sure to put your current or most recent job in even if that means leaving out some jobs.

If you WOULD LIKE HELP WITH THESE QUESTIONS, please call us collect at area code 319-335-5311

1. How satisfied are you with the following aspects of your present or most recent job? [CIRCLE ONE NUMBER FOR EACH LINE]

	Very satisfied	Satisfied	Dissatisfied	Very dissatisfied
a. Working conditions	1	2	3	4
b. Opportunity for promotion and advancement with this employer	1	2	3	4
c. Opportunity for developing new skills	1	2	3	4

2. Were you willing to move from your home town in order to get the job you wanted? [CIRCLE ONE]

Yes, I was willing to move away	1
Yes, it made no difference to me	2
Yes, but I preferred to find work in this community	3
No, I was not willing to move	4

3. How many jobs (part-time or full-time) have you held since leaving high school? _____

4. Since leaving high school, how many times have you been out of work for at least three consecutive months? _____

5. We would like information about all the jobs you have held since leaving high school. Please start with the first job you held.

a. First year after graduation:

Occupation _____

Location _____

Salary _____ ___weekly ___monthly

Opportunity for promotion (DESCRIBE) _____

_____

2. Between the time you left high school and the present time, have you enrolled in or did you take classes at any school such as college or university, graduate or professional school, service academy or school, business school, trade school, technical institute, vocational school, community college, and so forth? (Do not include Armed Forces training programs.) [CIRCLE ONE]

Yes.....1
No.....2

3. Between the time you left high school and the present time, have you held a full-time or part-time job of any kind? [CIRCLE ONE]

Yes.....1
No.....2 [If "No", skip to page 18, Section VI]

(CONTINUE TO SECTION V)

8. How much did each of the following interfere with your education in high school? [CIRCLE ONE NUMBER FOR EACH LINE]

	Not at all	Somewhat	A great deal
a. Courses were too hard	1	2	3
b. Hard to adjust to school routine	1	2	3
c. Poor teaching	1	2	3
d. Poor study habits	1	2	3
e. Courses were too easy	1	2	3

9. Please rate your school on each of the following aspects. [CIRCLE ONE NUMBER FOR EACH LINE]

	Poor	Fair	Good	Excellent	Don't know
a. Condition of buildings and classrooms	1	2	3	4	5
b. Library facilities	1	2	3	4	5
c. Quality of academic instruction	1	2	3	4	5
d. Reputation in the community	1	2	3	4	5
e. Teacher interest in students	1	2	3	4	5
f. Effective discipline	1	2	3	4	5
g. Fairness of discipline	1	2	3	4	5
h. School spirit	1	2	3	4	5

10. At what age do you expect to: [CIRCLE ONE NUMBER OR MARK AN "X" FOR EACH QUESTION]

	Don't expect to do this	Have already done this	Never	Age in years: 15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30 and over
a. Get married?	1	2	3																
b. Have your first child	1	2	3																
c. Start your first regular (not summer) job?	1	2	3																
d. Live in your own home or apartment?	1	2	3																
e. Finish your full-time education	1	2	3																

11. Did you expect to go to college when you were in the following grades? [CIRCLE ONE NUMBER FOR EACH LINE]

When you were . . .	Yes	No	Was not sure	Hadn't thought about it
a. In the 8th grade?	1	2	3	4
b. In the 9th grade?	1	2	3	4
c. In the 10th grade?	1	2	3	4
d. In the 11th grade?	1	2	3	4
e. In the 12th grade?	1	2	3	4

SECTION III
ADDITIONAL BACKGROUND INFORMATION

1. Sex: [CIRCLE ONE]

   Male.....1
   Female.....2

2. Do you think of yourself as a religious person? [CIRCLE ONE]

   Yes, very.....1
   Yes, somewhat.....2
   No, not at all.....3

3. What is your race? [CIRCLE ONE]

   Black.....1
   White.....2
   American Indian or Alaskan Native... 3
   Asian or Pacific Islander..... 4

   Other (DESCRIBE)_____

4. How many brothers and sisters do you have? Please include stepbrothers and stepsisters if they live, or have lived in your home. [CIRCLE ONE]

   None.....1
   One.....2
   Two.....3
   Three.....4
   Four.....5
   Five.....6
   Six or more.....7

5. Did you complete high school? [CIRCLE ONE]

   Yes, graduated.....1
   No, still in high school.....2
   No, left high school without completing.....3
   Yes, left high school but have since passed a high school equivalency test, for example, the GED..... 4

6. Which of the following best describes the place where you currently reside? [CIRCLE ONE]

   In a rural or farming community..... 1
   In a small city or town of fewer than 50,000 people that is not a suburb of a larger place..... 2
   In a medium-sized city (50,000-100,000 people)..... 3
   In a suburb of a medium-sized city..... 4
   In a large city (100,000-500,000 people..... 5
   In a suburb of a large city..... 6
   In a very large city (over 500,000 people..... 7
   In a suburb of a very large city..... 8
   A military base or station..... 9

SECTION IV
JOB AND EDUCATION INFORMATION

1(a) Please describe here what you <u>most desired</u> to do *September 1983* following high school graduation._____

(Note that the first column of responses below is designated as 'desired' --please circle that choice that comes the closest to what you described above*

(b) Please describe here what you <u>expected</u> to be doing *September 1983* following high school graduation (This is not necessarily what you desired to do.)

_____

(Note that the second column of responses below is designed as 'expected' --please circle the choice that comes closest to what you described above.)*

(c) Please describe what you <u>actually did</u> *September 1983* following high school graduation._____

(Note that the third column of responses below is designated 'did' -- please circle the choice that comes closest to what you described above.)*

(d) Which of the categories below comes closest to describing the choices indicated above? [CIRCLE ONE FOR EACH COLUMN]

	Desired	Expected	Did
CLERICAL such as bank teller, bookkeeper, secretary, typist, mail carrier, ticket agent	1	2	3
CRAFTSMAN such as baker, automobile mechanic, machinist, painter, plumber, telephone installer, carpenter	1	2	3
FARMER, FARM MANAGER	1	2	3
HOMEMAKER OR HOUSEWIFE ONLY	1	2	3
LABORER such as construction worker, car washer, sanitary worker, farm laborer	1	2	3
MANAGER, ADMINISTRATOR such as sales manager, office manager, school administrator, buyer, restaurant manager, government official	1	2	3
MILITARY such as career officer, enlisted man or woman in the Armed Forces	1	2	3
OPERATIVE such meat cutter, assembler, machine operator, welder, taxicab, bus, or truck driver	1	2	3
PROFESSIONAL such as accountant, artist, registered nurse, engineer, librarian, writer, social worker, actor, actress, athlete, politician, but not including school teacher	1	2	3
PROFESSIONAL such as clergyman, dentist, physician, lawyer scientist, college teacher	1	2	3
PROPRIETOR OR OWNER such as owner of a small business, contractor, restaurant owner	1	2	3
PROTECTIVE SERVICE such as detective, police officer or guard, sheriff, fire fighter	1	2	3
SALES such as salesperson, advertising or insurance agent, real estate broker	1	2	3
SCHOOL TEACHER such as elementary or secondary	1	2	3
SERVICE such as barber, beautician, practical nurse, private household worker, janitor, waiter	1	2	3
TECHNICAL such as draftsman, medical or dental technician, computer programmer	1	2	3
SERVING in an apprenticeship program or government training program	1	2	3
HOMEMAKER (without other job)	1	2	3
SELF-EMPLOYED in your OWN business	1	2	3
Working WITHOUT pay in family business or farm	1	2	3
Not working	1	2	3
Attend school	1	2	3

Appendix C

Tables

TABLE 1.

TWO-YEAR ATTENDERS: SUMMARY INFORMATION

	Persisters	Nonpersisters
	% (n)	% (n)
Male	42.6 (26)	41.4 (12)
Female	57.4 (35)	58.6 (17)
Married	63.8 (39)	72.4 (21)
First child	36.1 (22)	24.1 (8)

TABLE 2.

FOUR-YEAR ATTENDERS: SUMMARY INFORMATION

	Persisters	Nonpersisters
	% (n)	% (n)
Male	33.8 (23)	23.8 (5)
Female	66.2 (45)	76.2 (16)
Married	29.5 (21)	47.5 (10)
First child	10.0 (7)	14.3 (3)